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| PRE-APPEAL BRIEF REQUEST FOR REV | IEW | 9140.0014-00 | | |
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| I hereby certify that this correspondence is being deposited with the | Application No | umber | Filed | |
| United States Postal Service with sufficient postage as express mail | | | | |
| in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] | 09/903,081 | | July 10, 2001 | |
| Express Mail No. EV 901562537 US | Cinet Name 1.1 | | | |
| AUTO 2006 | First Named II | nventor | | |
| on August 8/ 2006 | DEMARAY, R | DEMARAY, Richard E. | | |
| Signature | | | | |
| Typed or printed (| Art Unit | | Examiner | |
| name Athena E. Pretory | 1731 | | HOFFMAN, John M. | |
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| Applicant requests review of the final rejection in the above-identified application. No amendments are being filed | | | | |
| with this request. | | | | |
| With the request. | | | j | |
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| This request is being filed with a notice of appeal. | | | | |
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| The review is requested for the reasons stated on the attached "Pre-Appeal Brief Reasons for Request for Review." | | | | |
| Note: No more than five (5) pages may be provided. | | | | |
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| I am the | | | | |
| applicant/inventor. [Applicant/inventor. Fr. Fr. | | | No. 57,228) for | |
| applicant/inventor. | 0. | My many is | 0 | |
| | _ | | gnature | |
| assigned of record of the antira interest | | | | |
| assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. Gary J. Edwards | | rds | | |
| 222 3. 2 | Typed or printed name | | | |
| attorney or agent of record. | | | | |
| Registration number 41,008 | . (650) 849-6622 | | | |
| | Telephone number | | | |
| attorney or agent acting under 37 CFR 1.34. | attorney or agent acting under 37 CFR 1.34. | | | |
| ., | August 8, 2006 | | | |
| Registration number if acting under 37 CFR 1.34 | | | Date | |
| | | | | |
| NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*. | | | | |
| Submit multiple forms if more than one signature is required, see below. | | | | |
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This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Alexandria, VA 22313-1450

N THE UNITED STATES PATENT AND TRADEMARK OFFICE

| In re A | application of: |) | |
|-----------------------------|--|----------------------------|--|
| DEM <i>A</i> | ARAY, Richard E. et al. |) Group Art Unit: 1731 | |
| Application No.: 09/903,081 | | Examiner: HOFFMAN, John M. | |
| Filed: | July 10, 2001 |) Confirmation No.: 1225 | |
| For: | AS-DEPOSITED PLANAR OPTICAL WAVEGUIDES WITH LOW SCATTERING LOSS AND METHODS FOR THEIR MANUFACTURE |))))) | |
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PRE-APPEAL BRIEF REASONS FOR REQUEST FOR REVIEW

Sir:

Applicants request a pre-appeal brief review of the Final Office Action dated May 8, 2006 ("Final Office Action"). This Request is being filed concurrently with a Notice of Appeal and a Pre-Appeal Brief Request for Review.

I. REQUIREMENTS FOR SUBMITTING A PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants have met each of the requirements for a pre-appeal brief review of rejections set forth in an Office Action. The application has been at least twice rejected. Applicants have filed a Notice of Appeal with this Request, and have not yet filed an Appeal Brief. Lastly, Applicants submit a Pre-Appeal Brief Request for Review that is five (5) or less pages in length and sets forth legal or factual deficiencies in the rejections. *See* Official Gazette Notice, July 12, 2005. Therefore, Applicants request review of the Examiner's rejections in the Final Office Action for the following reasons. Applicants reserve the right to raise additional arguments on appeal, including arguments that could have been raised here.

not understood." Final Office Action, page 3. Applicants respectfully submit that "[d]uring patent examination, the pending claims must be 'given their broadest reasonable interpretation consistent with the specification." MPEP § 2111, 8th Ed. (Rev. 4), October, 2005. Here, the Examiner has not given the claims "their broadest reasonable interpretation," but rather has chosen to overlook a "broadest reasonable interpretation" of the terms "separate" and "cover" and decide that the claims are indefinite.

For example, with respect to the disputed term "separate," the Examiner asserts that although Applicants' specification "provide <u>basis for no etching</u>, there is nothing which supports the language of 'separate' portion." Final Office Action, page 7 (emphasis added). The Examiner is thus apparently arguing that because Applicants do not specifically use the word "separate" in the specification, that claims 14-20 and 24-27 are indefinite.

Initially, Applicants note that "a claim term that is not used or defined in the specification is not indefinite if the meaning of the claim term is discernible." MPEP § 2173.02, 8th Ed. (Rev. 4), October, 2005. Applicants respectfully submit that the term "separate" is discernible by one of skill in the art. As claimed, the process in claims 14 and 18, and the method recited in claim 29, does not perform, or require "a separate step of etching the core layer." Thus, consistent with Applicants' claimed invention, and discernible by one of skill in the art, the claimed method and process fabricates a planar optical device which does not require a separate step of etching the core layer (as further acknowledged by the Examiner in the Final Office Action at page 4). Support for this feature may be found in Applicants' specification at, for example, paragraph [0008], lines 1-2; paragraph [0014], lines 1-2; paragraph [0024], lines 3-4; and paragraph [0035], line 1.

Applicants further remind the Examiner that "[d]efiniteness of claim language must be analyzed, not in a vacuum, but in light of:(A) The content of the particular application disclosure; (B) The teachings of the prior art; and (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made." MPEP § 2173.02, 8th Ed. (Rev. 4), October, 2005. Moreover, the MPEP states "if the language used by applicant satisfies the statutory requirements of 35 U.S.C. 112, second paragraph, but the examiner merely wants the applicant to improve the clarity or precision of the language used, the claim must not be rejected under 35 U.S.C. 112,

second paragraph, rather, the examiner should suggest improved language to the applicant." <u>Id</u>. In light of these factors, Applicants respectfully submit that one ordinary skill would understand the term "separate" and "cover" as used in claims 14, 18, and 29, and the pending claims are definite within the provisions of the second paragraph of 35 U.S.C. § 112.

In the Final Office Action, the Examiner also rejected claims 14-20, 24-27 and 29 under 35 U.S.C. § 112, second paragraph, for "failing to set forth the subject matter which applicant(s) regard as their invention. Specifically, the Examiner asserts that "[e]vidence ... can be found in the reply," wherein "applicant has stated 'the core layer is not etched', and this statement indicates that the invention is different from what is defined in the claim(s) because the claims merely require the absence of a separate step of etching and [0035] - [0036] discloses that etching does occur." Final Office Action, page 4. Applicants respectfully submit that the referenced statement contained a typographical error, and should have read "the core layer is not separately etched," consistent with independent claims 14, 18, and 29. Accordingly, Applicants respectfully submit that the subject matter regarded as Applicants' invention is clearly set forth in the claims.

For at least the foregoing reasons, Applicants respectfully submit that the rejections of claims 14-20, 24-27 and 29 under 35 U.S.C. § 112, second paragraph are erroneous, and ask that these rejections be withdrawn.

III. THE REJECTION OF CLAIMS 14-20, 24-27 AND 29 UNDER 35 U.S.C. § 103(A) IS CLEARLY ERRONEOUS BECAUSE A PRIMA FACIE CASE OF OBVIOUSNESS HAS NOT BEEN ESTABLISHED

With respect to the rejection of claims 14-20, 24-27 and 29 under 35 U.S.C. § 103(a), a *prima* facie case of obviousness has not been established because the applied references, whether taken alone or in combination, fail to teach or suggest every element recited in the claims. See MPEP § 2143 8th Ed. (Rev. 4), October, 2005. For example, Nourshargh fails to teach or suggest a combination including at least "the core layer covers the ridge portion, the sidewall portion, and the planar portion of the ridge structure," and "wherein the process excludes a separate step of etching the core layer," as recited in independent claims 14, 18, and 29.

In Applicants' Amendment and Response to Office Action ("Response") filed February 28, 2006, Applicants noted that Nourshargh specifically teaches first "that the core glass [has a] thickness which is

less than the depth of the grooves 13" (col. 2, lines 26-28), and, as shown in Fig. 2(c), since the thickness of the core glass 14 is less than the depth of the grooves 13, core glass 14 cannot "cover[] the ridge portion, the sidewall portion, and the planar portion of the ridge structure," as recited in independent claims 14, 18, and 29 (emphasis added). Additionally, Nourshargh also specifically teaches that a "waveguide pattern is then written photolithographically on the deposited core layer," and then "[t]he rest of the core layer is completely etched away" (col. 2, lines 37-41), indicating a separate etching step.

Nourshargh thus fails to teach or suggest a combination including at least "the core layer covers the ridge portion, the sidewall portion, and the planar portion of the ridge structure," and "wherein the process excludes a separate step of etching the core layer," as recited in independent claims 14, 18, and 29.

In the Final Office Action, the Examiner responded, asserting that although "Nourshargh does not have the identical coverage that Applicant's specific embodiment (fig 4b)has ... to the examiner they are partially covered." Final Office Action, page 8. Here, the Examiner first acknowledges a difference between Nourshargh and an embodiment consistent with the specification (as shown in, for example, Fig. 4) and then ignores the "broadest reasonable interpretation consistent with the specification." Applicants respectfully submit that the Examiner's interpretation of the term "cover" is not only inconsistent with the specification, but also not consistent with the understanding of the term as would be understood by one of skill in the art. For at least the reasons discussed above Nourshargh clearly fails to teach or suggest a combination including "the core layer covers the ridge portion, the sidewall portion, and the planar portion of the ridge structure," as recited in independent claims 14, 18, and 29.

The Examiner further responded that Applicants' assertion that Nourshargh teaches etching "is largely irrelevant as that teaching pertains to a different embodiment." Final Office Action, page 8.

Applicants remind the Examiner, however, "[a] reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art." MPEP § 2123, 8th Ed. (Rev. 4), October, 2005. In any event, Nourshargh teaches, with respect to the applied embodiment, "[i]n a preferred embodiment ... [t]he desired pattern of glass may be formed by selective removal ... and then etching away the remainder of the first layer of glass." Nourshargh, col. 1, lines 33-43 (emphasis added).

Accordingly, for at least this reason, and the reasons discussed above, Nourshargh clearly fails to teach or

suggest a combination including "wherein the process excludes a separate step of etching the core laver."

as recited independent in claims 14, 18, and 29.

In the Response, Applicants further presented arguments demonstrating that <u>Kawaguchi</u>, <u>Weber</u>,

Klein, Kestigan, and Makikawa also fail to teach or suggest a combination including "the core layer

covers the ridge portion, the sidewall portion, and the planar portion of the ridge structure," and "wherein

the process excludes a separate step of etching the core layer," as recited in claims 14, 18, and 29. In the

Final Office Action, the Examiner did rebut these arguments, stating "it does not matter that Klein and

Kawaguchi (and the other secondary references) do not teach certain features: those features are

elsewhere provided for in the rejection." Final Office Action, page 8. In other words, the Examiner has

apparently relied on Nourshargh for teaching these features. However, as discussed above, Nourshargh

clearly fails to teach or suggest a combination including "the core layer covers the ridge portion, the

sidewall portion, and the planar portion of the ridge structure," and "wherein the process excludes a

separate step of etching the core layer," as recited in independent claims 14, 18, and 29, and required by

dependent claims 15-17, 19, 20, and 24-27.

Because the applied references, taken alone or in combination, fail to teach or suggest every

element recited in the claims, a prima facie case of obviousness has not been established. Accordingly,

Applicants submit that the Examiner's rejection of claims 14-20, 24-27 and 29 under 35 U.S.C. § 103(a)

is erroneous, and respectfully request that the rejections under 35 U.S.C. § 103(a) be withdrawn.

Please grant any extensions of time required to enter this response and charge any additional

required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW.

GARRETT & DUNNER, L.L.P.

Dated: August 8, 2006

Daly (Ry. No. 57228) for Gary J. Edwards

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